AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Please Cancel Claims 19 and 31, and Amend Claims 12 and 24, as follows:

1. (Cancelled) A multi-layer article comprised of a fluoroelastomer polymer layer and a substrate wherein the bond between the layers is formed through a three stage molding technique where the substrate alone is first pre-cured to an incomplete state of cure in a mold at a temperature of 75 to 150 C, secondly an uncured fluoroelastomer film of less than or equal to 0.3 mm thickness is placed on the substrate and the layers are cured together in the mold at a temperature of 150 to 250 C and finally the article is removed from the mold and cured in an oven at a temperature of 100 to 180 C such that the cross linking of the layers forms a permanent bond between them, and wherein the fluoroelastomer comprises a monomer segment derived from an olefinic hydrocarbon.

2. (Cancelled) The multi-layer article of claim 1, wherein the fluoroelastomer is a copolymer including tetrafluoroethylene.

3. (Cancelled) The multi-layer article of claim 1, wherein the fluoroelastomer is a copolymer including vinylidene fluoride.

4. (Cancelled) The multi-layer article of claim 1, wherein the fluoroelastomer is a copolymer including hexafluoropropylene.

5. (Cancelled) The multi-layer article of claim 1, wherein the olefinic hydrocarbon is propylene.

6. (Cancelled) The multi-layer article of claim 1, wherein the olefinic hydrocarbon is ethylene.

7. (Cancelled) The multi-layer article of claim 1, wherein the substrate includes a non-fluorinated polymer.

8. (Cancelled) The multi-layer article of claim 7, wherein the non-fluorinated polymer comprises a thermoplastic polymer.

9. (Cancelled) The multi-layer article of claim 7, wherein the non-fluorinated polymer comprises a thermoplastic elastomer.

10. (Cancelled) The multi-layer article of claim 7, wherein the non-fluorinated polymer is selected from the group consisting of nitrile rubbers, ethylene-propylene-diene monomer rubbers, epichlorohydrin rubbers, ethylene-acrylate copolymer rubbers, polyamides, polyurethanes, polyolefins, and combinations thereof.

11. (Cancelled) The multi-layer article of claim 1, wherein the fluoroelastomer is a fluoroplastic.

12. (Currently Amended) A process for preparing a multi-layer article, comprising the steps of:

(a) placing a substrate in a mold, and wherein said substrate alone is first pre-cured to an incomplete state of cure in said mold at a temperature of 75 to 125 C,

(b) an uncured fluoroelastomer layer of ~~less than or equal to~~ up to about 0.3 mm thickness is placed on said pre-cured substrate of step (a) and said layers are cured together in said mold at a temperature of 150 to 225 C to form an intermediate article, and

(c) removing said intermediate article of step (b) from said mold and curing it in an oven at a temperature of 100 to 150 C such that the cross linking of the layers forms a permanent bond between said substrate and said fluoroelastomer layer and thereby forming said multi-layer article.

13. (Previously Amended) The process of claim 12, wherein said fluoroelastomer layer is a copolymer derived from a monomer selected from a group consisting of tetrafluoroethylene, vinylidene fluoride, hexafluoropropylene and an olefinic hydrocarbon.

14. (Previously Amended) The process of claim 13, wherein said olefinic hydrocarbon is selected from a group consisting of ethylene and propylene.

15. (Previously Amended) The process of claim 12, wherein said substrate is selected from a group consisting of a non-fluorinated polymer and a metal.

16. (Previously Amended) The process of claim 15, wherein said non-fluorinated polymer is selected from a group consisting of nitrite rubbers, ethylene-propylene-diene monomer rubbers, epichlorohydrin rubbers, ethylene-acrylate copolymer rubbers, polyamides, polyurethanes, polyolefins, and combinations thereof.

17. (Cancelled) The multi-layer article of claim 1, wherein the article is a fine bubble diffuser membrane as used in the waste water treatment industry.

18. (Cancelled) The multi-layer article of claim 1, wherein the article is a coarse bubble diffuser membrane as used in the waste water treatment industry.

19. (Cancelled) The process of Claim 12, wherein said fluoroelastomer layer comprises a fluoropolymer.

20. (Previously Amended) The process of Claim 12, wherein said fluoroelastomer layer comprises a monomer segment derived from an olefinic hydrocarbon.

21. (New) The process of Claim 15, wherein said non-fluorinated polymer is selected from a group consisting of a thermoplastic polymer and a thermoplastic elastomer.

22. (New) The process of Claim 12, wherein said fluoroelastomer layer is selected from a group consisting of a fine bubble diffuser membrane and a coarse bubble diffuser membrane.

23. (New) The process of Claim 12, wherein said fluoroelastomer is a fluoroplastic.

24. (Currently Amended) A process for preparing a multi-layer article, comprising the steps of:

(a) placing a substrate in a mold, and wherein said substrate alone is first pre-cured to an incomplete state of cure in said mold at a temperature of 75 to 125 degrees C,

(b) an uncured fluoroelastomer layer of ~~less than or equal to~~ up to about 0.3 mm thickness is placed on said pre-cured substrate of step (a) and said layers are cured

together in said mold at a temperature of 150 to 250 degrees C to form an intermediate article, and

(c) removing said intermediate article of step (b) from said mold and curing it in an oven at a temperature of 100 to 180 degrees C such that the cross linking of the layers forms a permanent bond between said substrate and said fluoroelastomer layer and thereby forming said multi-layer article.

25. (New) The process of Claim 24, wherein said fluoroelastomer layer is a copolymer derived from a monomer selected from a group consisting of tetrafluoroethylene, vinylidene fluoride, hexafluoropropylene and an olefinic hydrocarbon.

26. (New) The process of Claim 25, wherein said olefinic hydrocarbon is selected from a group consisting of ethylene and propylene.

27. (New) The process of Claim 24, wherein said substrate is selected from a group consisting of a non-fluorinated polymer and a metal.

28. (New) The process of Claim 27, wherein said non-fluorinated polymer is selected from a group consisting of nitrite rubbers, ethylene-propylene-diene monomer rubbers, epichlorohydrin rubbers, ethylene-acrylate copolymer rubbers, polyamides, polyurethanes, polyolefins, and combinations thereof.

29. (New) The process of Claim 27, wherein said non-fluorinated polymer is selected from a group consisting of a thermoplastic polymer and a thermoplastic elastomer.

30. (New) The process of Claim 24 wherein said fluoroelastomer layer is selected from a group consisting of a fine bubble diffuser membrane and a coarse bubble diffuser membrane.

31. (Cancelled) The process of Claim 24, wherein said fluoroelastomer layer comprises a fluoropolymer.

32. (New) The process of Claim 24, wherein said fluoroelastomer layer comprises a monomer segment derived from an olefinic hydrocarbon.

33. (New) The process of Claim 24, wherein said fluoroelastomer is a fluoroplastic.